



Complete Summary

TITLE

Acetaminophen use: percentage of patients prescribed acetaminophen who have risk factors for liver disease AND the percentage of patients treated with high-dose (greater than or equal to 4 gm/day) acetaminophen who are advised of the associated risk of liver toxicity.

SOURCE(S)

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. *Arthritis Rheum* 2004 Apr 15;51(2):193-202. [PubMed](#)

Saag KG, Olivieri JJ, Patino F, Mikuls TR, Allison JJ, MacLean CH. Measuring quality in arthritis care: the Arthritis Foundation's quality indicator set for analgesics. *Arthritis Rheum* 2004 Jun 15;51(3):337-49. [89 references] [PubMed](#)

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients prescribed acetaminophen who have risk factors for liver disease AND the percentage of patients treated with high-dose (greater than or equal to 4 gm/day) acetaminophen who are advised of the associated risk of liver toxicity.

RATIONALE

The risks of liver toxicity are increased in users of acetaminophen as compared to nonusers.

PRIMARY CLINICAL COMPONENT

Acetaminophen; risk factors for liver disease; liver toxicity

DENOMINATOR DESCRIPTION

Patients prescribed acetaminophen who have risk factors for liver disease OR patients treated with high-dose (greater than or equal to 4 gm/day) acetaminophen

NUMERATOR DESCRIPTION

Patients who are advised of the associated risk of liver toxicity

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Unspecified

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Although routinely recommended as a first-line analgesic due to its safety profile, acetaminophen has been associated with hepatotoxicity in patients receiving very high doses (typically greater than or equal to 10 gm/day) or having risk factors, such as chronic alcoholism, fasting, or existing renal or cardiovascular disease.

EVIDENCE FOR BURDEN OF ILLNESS

Saag KG, Olivieri JJ, Patino F, Mikuls TR, Allison JJ, MacLean CH. Measuring quality in arthritis care: the Arthritis Foundation's quality indicator set for analgesics. *Arthritis Rheum* 2004 Jun 15;51(3):337-49. [89 references] [PubMed](#)

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Safety

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Patients prescribed acetaminophen who have risk factors for liver disease OR
patients treated with high-dose (greater than or equal to 4 gm/day)
acetaminophen

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients prescribed acetaminophen who have risk factors for liver disease OR
patients treated with high-dose (greater than or equal to 4 gm/day)
acetaminophen

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Therapeutic Intervention

DENOMINATOR TIME WINDOW

Unspecified

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients who are advised of the associated risk of liver toxicity

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

A multidisciplinary expert panel comprised of nationally recognized experts discussed and rated the validity of each of the proposed measures based on the evidence and their expert opinion using a modification of the RAND/UCLA Appropriateness Method.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. *Arthritis Rheum* 2004 Apr 15;51(2):193-202. [PubMed](#)

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Identifying Information

ORIGINAL TITLE

Quality indicator 3. Acetaminophen use: informing patients of risks of liver toxicity.

MEASURE COLLECTION

[The Arthritis Foundation's Quality Indicator Project](#)

MEASURE SET NAME

[The Arthritis Foundation's Quality Indicator Set for Analgesics](#)

SUBMITTER

Arthritis Foundation

DEVELOPER

Arthritis Foundation
RAND Health
University of Alabama at Birmingham

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2004 Jun

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

MacLean CH, Saag KG, Solomon DH, Morton SC, Sampsel S, Klippel JH. Measuring quality in arthritis care: methods for developing the Arthritis Foundation's quality indicator set. *Arthritis Rheum* 2004 Apr 15;51(2):193-202. [PubMed](#)

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MEASURE AVAILABILITY

The individual measure, "Quality Indicator 3. Acetaminophen Use: Informing Patients of Risks of Liver Toxicity," is published in "Measuring Quality in Arthritis Care: The Arthritis Foundation's Quality Indicator Set for Analgesics."

For more information contact:
Arthritis Foundation
P.O. Box 7669
Atlanta, GA 30357-0669
Telephone: 404-872-7100 or 1-800-568-4045
Web site: www.arthritis.org

OR

RAND Health
1776 Main Street
P.O. Box 2138
Santa Monica, CA 90407-2138
Telephone: (310) 393-0411, ext. 7775
Web site: www.rand.org/health
E-mail: RAND_Health@rand.org

NQMC STATUS

This NQMC summary was completed by ECRI on August 7, 2007. The information was verified by the measure developer on September 10, 2007.

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